

## ABSTRACT

This invention provides a method for producing canthaxanthin, which is inexpensive, stably provided, and highly safe. This method comprises steps of: inducing mutation in astaxanthin-producing microorganisms in which the nucleotide sequence of DNA corresponding to its 16S ribosomal RNA is substantially homologous to the nucleotide sequence as shown in SEQ ID NO: 1; obtaining canthaxanthin-producing microorganisms by selecting a mutant having a higher ratio of canthaxanthin produced (% by mass) relative to the total amount of carotenoid produced than that of a parent strain; and recovering canthaxanthin or a carotenoid mixture comprising canthaxanthin from the culture product of the canthaxanthin-producing microorganisms.